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REMARKS

Claims 3, 5, 8,10,12 were rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-28 were rejected under 35 USC § 112, second paragraph, as being indefinite. The specification was objected to for not providing the serial number.

The specification is being amended to include the serial number references of related applications to overcome the objections to the specification.

35 USC § 112, First Paragraph, Rejection

Claims 3, 5, 8,10,12 were rejected under 35 USC § 112, first paragraph.

Regarding claim 3, "a first portion of the net value", and "a second portion" are not mentioned clearly in the specification. Regarding claim 5, "a third portion" is not mentioned clearly in the specification.

Examiner is invited to refer to Applicant's Figure 1A and the text starting on page 13, line 13 of the specification. Fig. 1A shows that the "net value created" can be divided into 3 portions shown on the bottom of the Figure, including a first portion of "net value to seller", a second portion of "net value to buyer" and a third portion of "net value to exch", to the trading exchange. This 3-portion split of the net value is noted in the specification on page 13, lines 15-16:

This net value is divided among the buyer, seller, and the trading exchange.

Regarding claim 8, "a base value" is not mentioned clearly in the specification. However, page 9, lines 1-2 define a "Base Product Value":

Base Product Value - is the utility function value (typically price) at which a trading partner starts valuing a product.

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The claimed base value can be for a product or a service, so the broader term "base value" is used in the claims. Note also the term "baseline value" used on page 20:

1. Each trading partner identifies a baseline value for the trade.

For each attribute value combination that a Trade Agent 1102, 1104, 1106 cares about (that pertains to its service category) the Trade Agent 1102, 1104, 1106 provides a delta value. A positive delta value means that the Trade Agent values this combination

more than the baseline and a negative value means that the Trade Agent 1102, 1104, 1106 values this combination less. The True Value is the sum of the baseline and the

delta. (page 20, lines 4-10, emphasis added)

Thus the base value is added to a delta or differential for an attribute and the sum of the base value and delta is an example of what Applicant calls the "true value".

Regarding claim 10, "a trading protocol" is not mentioned clearly in the specification. Examiner is invited to review the section entitled "Trading Protocol and Creating Net Value (NV)" starting on page 12, line 25 of the specification. The trading protocol is also described on page 15, lines 19-23:

Trade Manager 1110 identifies the potential trading partners for a given trade and identifies the trading protocol that will be used among the trading partners to communicate their True Values and for the system to compute the Net Value.

Regarding claim 12, "a particular combination" is not mentioned clearly in the specification. Claim 12 is being amended to remove the word "particular" so that the claim simply recites "a combination of the attributes".

Regarding claim 18, "an exchange allocation" is not mentioned clearly in the specification. Claim 18 is being amended to recite "an allocation to the exchange" to more clearly recite that the remainder is the net value remaining after the exchange has been allocated some of the net value. See also page 13, lines 15-16 where "dividing" describes a type of allocation, and also page 14, line 8.

Regarding claim 18, "a remainder of the cumulative net value" is not mentioned clearly in the specification. Allocation of the remainder of the net value is described in the specification:

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Figure 6 shows equally dividing the net value created among all trading partners. In this embodiment all trading partners are treated equally, and the Net Value created is equally distributed among all the trading partners after the revenue to the exchange. Step 1605 sets the count for the total number R of Trade Agents 1102, 1104, 1106. V is initialized in step 1605 to the remainder after the exchange has taken its revenue from the Net Value. The net value is the difference between the true values of the buyer and seller in a 2-party trade, or buyers and sellers in multi-party trades. (Spec page 21, lines 7-13, emphasis added)

See also the specification on page 21, line 24, page 22, line 16, and the surrounding descriptions of how the remainder can be distributed or allocated. 10

Thus, with the amendments to the claims and the discussion above, Applicant has obviated or overcome the 35 USC § 112, first paragraph, rejections to the claims.

35 USC § 112, Second Paragraph, Rejection

Claims 1-28 were rejected under 35 USC § 112, second paragraph.

The Examiner questions Applicant's use of the term "true value". Examiner is apparently defining "true" as "unique" or "only", as if there can only be one "true" value for a trade. However, Applicant's specification clearly describes that there are more than one true value for a given trade. The buyer has a true value and the seller has another true value.

Applicant has exercised his privilege of being his own lexicographer and has clearly defined true value in the specification on page 10, lines 1-6:

18. True Value: True Value (TV) defines the price that a trading partner believes a product is actually worth. The TV is the true value that a given trading partner places on a given product. This depends on the attributes of the product and the importance given by the partner to each attribute, on the priorities and objectives of the trading partner, and on market conditions. Price is used as a general measure for value. In another embodiment, a different measure can be used.

Thus Applicant defines the term "true value" as a convenient way of identifying the value perceived by each trading partner. For example, the value perceived by the seller is the seller's true value, and the value perceived by the buyer is the buyer's true value.

Examiner would likely agree that different persons can value the same item differently. 35

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For example, one air traveler may highly value flying during the day, while another air traveler may value an aisle seat more highly than the travel time.

Applicant would be willing to provide a substitute specification, claims, and drawings that replace the term "true value" with "perceived value" if the claims were allowed and the Examiner requests such an extensive change.

Claim 1 was also vague and indefinite because "trade manager generating a net value as a difference of the buyer true values and the seller true values" renders the claim unclear. How? According to the claimed invention, the true value managers coupled to the trading agents of which also coupled to trading partners whom provide or consume trading elements, and therefore, they all know the true values of trading elements. If they do, how does the revenue manager generate revenue if everything is being trade at true values? (A net value is defined as the difference of the buyer true values and the seller true values).

The conclusion "therefore, they all know the true values of trading elements" is based on the trade manager being coupled to the trading agents. Although coupling is claimed, the specification clearly states that the buyer true values are hidden from the seller, and the seller true values are hidden from the buyer:

Each Trade Agent is aware of the True Value that its Trading Partner ascribes to a given trading element and uses this information to make decisions about participating in a deal. Each Trade Agent keeps this information about the True Values confidential from the exchange and from all other trading partners and only discloses this information to selected trading partners if authorized to do so by the Trading Partner. (Page 14, line 26 to page 15, line 2, emphasis added)

Thus the conclusion that "they all know the true values of trading elements" is contrary to the explicit teaching of Applicant's specification. Also, as described above, the net value created is the difference between the buyer true value and the seller true value. Since the true values are confidential, the trade manager can allocate the differences in true values of buyer and seller without passing the seller true values back to the buyer.

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There is no confusion here if one accepts Applicant's definition of true value rather than impose an external definition that requires only one true value. The patent laws clearly allow a patent application to be his own lexicographer especially when describing novel systems.

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Claim 1 is vague and indefinite because "the net value among the trading partners representing the buyers and the sellers, whereby the net value is allocated among buyers and sellers" renders the claim unclear (idiomatic English). This does not make sense.

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Claim 1 recites:

a revenue manager, coupled to the trade manager to receive the net value, for allocating the net value among the trading partners representing the buyers and the sellers, whereby the net value is allocated among buyers and sellers.

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It should be noted that the claim recites "for allocating the net value among trading partners...", not simply "the net value among trading partners...". Thus the revenue manager allocates the net value among the trading partners. The final whereby clause merely repeats that the net value is allocated among buyers and sellers. Applicant is unsure why Examiner finds this part of the claim confusing. Please elaborate.

Claim 1 is vague and indefinite because "the true values being defined by a trading partner to represent value of the trading elements as perceived by the trading partner" renders the claim unclear. What is the system for a trading partner to go by in order to represent value of the trading elements?

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The trading partner defines what value is placed on trading elements. Rather than just one simple product or service, the trading elements combine to present a range of options or "attributes" of the product or service. Each trading partner (buyer, seller) can value trading elements using multiple attributes:

For instance, an airline ticket can be thought of as having a number of attributes like day-of-departure, day-of-arrival, time-of-departure, time-of-arrival, class-of-service, etc. Attributes

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have values and ranges. Time-of-departure has possible values of different times of the day. Ranges help group values at equal intervals. For instance, the time-of-departure attribute for an airline that flies every hour of the day except between 1pm and 4pm and 2am and 4am can be described using two ranges: 5pm-1am and 5am-12pm. (page 11, lines 13-19)

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Trading partners attach different True Values to different attribute values. For one customer, customer A, a flight leaving in the morning is of higher value than the one leaving at night while for another customer, customer B, the opposite may be applicable. The airline may value flights in the morning and evening in different ways based on other parameters. This invention helps the airline sell tickets to both customers A and B and satisfy them and still maximize the airline's True Value. (page 11, lines 21-30)

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A trading partner (buyer or seller) defines what value he perceives for a range of options using true values for those options:

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For instance, a customer may provide a baseline value (price) of \$500 for a ticket from San Francisco to New York. For a flight leaving in the morning the customer may specify a differential or delta of +40\$ indicating that a morning flight is of higher value to the customer. For a flight leaving in the evening the customer may specify a differential or delta of -50\$ indicating that an evening flight is of less value to the customer. This is called the Explicit TV method. (page 12, lines 7-12)

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Several systems such as the one quoted above are described in the specification as a way for a trading partner to represent value of trading elements. Thus the "system for a trading partner to go by in order to represent value of the trading elements" is explained.

Claim 2 is vague and indefinite because there is no clear or proper antecedent basis for "wherein the buyer pays less than the buyer true value for the trading system". How? If indeed it is true; then, the seller will not have a net value.

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Applicant's Figure 1A shows a graph of values, with higher values to the right on the x-axis. The Figure shows the "true value of buyer" is higher than the price the buyer pays (vertical line between "net value to exch" and "net value to buyer"). Thus there is antecedent in the specification (page 13) and drawings for the buyer paying less than the buyer true value. The seller has the "net value to seller" shown in Fig. 1A.

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Claim 2 is vague and indefinite because the entire claim does not make sense. Applicant disagrees. If Applicant's definitions are used, claim 2 makes sense, especially in view of Fig. 1A.

Claim 4 is vague and indefinite because there is no clear or proper antecedent basis for "the first portion and the second portion are equal". What is the first portion? What is the second portion? Why are they equal? And, Is it always equal?

Examiner is invited to refer to Applicant's Figure 1A and the text starting on page 13, line 13 of the specification. Fig. 1A shows that the "net value created" can be divided into 3 portions shown on the bottom of the Figure, including a first portion of "net value to seller", a second portion of "net value to buyer" and a third portion of "net value to exch", to the trading exchange. This 3-portion split of the net value is noted in the specification on page 13, lines 15-16:

This net value is divided among the buyer, seller, and the trading exchange.

Thus clear antecedent basis is found in the specification. The portions can be equal or non-equal. Figure 6 shows equally dividing the net value created among all trading partners. Figures 7, 8 shows dividing the net value created among trading partners using weightings or other methods that may result in non-equal portions.

Claim 5 is vague and indefinite because "whereby the electronic exchange receives a portion of the net value" renders the claim unclear. How big is the portion? And what determined the "portion"?

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Figures 6, 7, and 8 and the specification on pages 21-22 describe in detail determining portions to buyer, seller, and the exchange. The claim is not vague when viewed in light of the supporting specification and drawings.

Claim 6 is vague and indefinite because "the true values vary with attributes of the trading elements" renders the claim unclear. Base on this sentence, should "true

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values" be called true values? Should it be just "the values" of the trading elements vary with attributes? See claim 25 for the same informality.

Please see the discussion above about portions and the term "true values". Applicant prefers to use his own terminology and Examiner is requested to read the claims in light of Applicant's clear definitions of terms on pages 8-10 of the specification. Applicant's specification was not intended to be read with a definition of true value as being a single value for both buyer and seller and all attributes. Instead, a range of true values exists.

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Claim 7 is vague and indefinite because there is no clear or proper antecedent basis for "the trade manager maximizes net value when selecting attributes of the trading system". How? And which attributes will be the decisive factor?

15 See pages 12 and 16 for a description of maximizing true values across attributes:

The goal of the Trade Manager is to identify an offer from all the submitted offers, the one offer that maximizes value. This offer, O_d called the Deal has the maximum value of the $Sum(D_{k,p}) - Sum(D_{k,q})$ where TA_p 's are Consumers (buyers) and TA_q 's are providers (sellers). (Spec page 16, lines 17-20)

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Claim 12 is vague and indefinite because "true values representing differing valuations the trading partner places on the trading element when modified by attributes" renders the claim unclear. Base on this sentence, should "true values" be called true values? Should it be just "the values" of the trading elements vary with attributes?

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Again, Examiner has a different definition of true values than is used by Applicant. The true values may better be called "perceived values".

Claim 12 is vague and indefinite because there is no clear or proper antecedent basis for "attributes". What are they? See other claims for the same informality. Claim 14 is vague and indefinite because "the attributes are associated with attributes values, the

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attribute values defining a configuration of an attribute of the trading element" renders the claim unclear. This sentence does not comprise a clear meaning.

Attributes and attribute values are defined on page 9:

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11. Attribute - An abstract data type that provides a mechanism for Trading Partners to describe their product/service to a finer level of granularity taking into account the strengths and weaknesses of the trading partners. Application or Industry specific attributes may be defined by subclassing the base Attribute class. Example: Date, Location, Weight are all attributes in the system.

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12. Attribute Value - Quantifiable values assigned to Attribute instances. Example: 6/01/00 is the attribute value assigned to a Date attribute.

Claim 17 is vague and indefinite because it does not make sense. What does the claim try to address?

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Claim 17 is being amended to provide clarification. Applicant apologizes for his error in deleting claim words.

In view of the above, it is submitted that claims 1-28, as amended, are in a position for allowance. Applicant believes that a full and complete response to the office action has been made. Reconsideration and re-examination is respectfully requested. Allowance of the claims at an early date is solicited.

If the Examiner believes that a telephone interview would expedite prosecution of this application, he is invited to telephone the undersigned at (831) 476-5506.

Stuart T. Auvinen 429 26th Avenue Santa Cruz, CA 95062

(831) 476-5506 (831) 477-0703 Fax Respectfully Submitted,

Stuart T. Auvinen Agent for Applicant Reg. No. 36,435

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NH-2

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification on page 3, please replace the first paragraph in the "Related Application" section with:

A provisional patent application entitled "System and Method for Value Creation in an Electronic Trading System" was filed on 4/17/00—by the same inventors for the present application, U.S. Provisional Appl. No. 60/198,125.—, Attorney

On page 11, please replace the second paragraph with:

25 In the Claims

A multi-party trading system comprising:
 trading agents, coupled to trading partners that provide or consume trading elements,
 for representing the trading partners in an electronic exchange;

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value managers, coupled to the trading agents, each for storing and managing true values, the true values being defined by a trading partner to represent value of the trading elements as perceived by the trading partner;

a trade manager, coupled to the trading agents and receiving the true values from the value managers, for conducting trades at the electronic exchange, the trade manager receiving buyer true values from trading agents representing buyers that consume a trading element and seller true values from trading agents representing sellers that provide the trading element, the trade manager generating a net value as a difference of the buyer true values and the seller true values; and

a revenue manager, coupled to the trade manager to receive the net value, for allocating the net value among the trading partners representing the buyers and the sellers, whereby the net value is allocated among buyers and sellers.

15 2. The multi-party trading system of claim 1 wherein the buyer pays less than the buyer true value for the trading element;

wherein the seller receives more than the seller true value for the trading element, whereby the buyer and seller trade at better prices than their true values when a trade is conducted by the electronic exchange.

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- 3. The multi-party trading system of claim 1 wherein the revenue manager allocates:
 - a first portion of the net value to a trading partner representing a seller of the trading element,
- a second portion of the net value to a trading partner representing a buyer of the trading element,

whereby the net value is allocated to both the buyer and the seller.

4. The multi-party trading system of claim 3 wherein the first portion and the second portion are equal,

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whereby the buyer and seller equally share portions of the net value.

- The multi-party trading system of claim 3 wherein the revenue manager also allocates a third portion of the net value to the electronic exchange,
- whereby the electronic exchange receives a portion of the net value, the net value being the difference between the seller true values and the buyer true values for the trading element.
- 6. The multi-party trading system of claim 3 wherein the true values vary with

 attributes of the trading elements, the value managers providing a plurality of
 true values for a trading element that is modified by several of the attributes,
 whereby the value managers adjust the true values to account for attributes that modify
 a trading element.
- 7. The multi-party trading system of claim 6 wherein the trade manager selects attributes and attribute values of the attributes for a trading element to maximize a net value, the net value being a difference of buyer true values received from trading agents representing buyers and seller true values received from trading agents representing sellers of the trading element,
- whereby the trade manager maximizes net value when selecting attributes of the trading element.
 - 8. The multi-party trading system of claim 6 wherein the value managers store a base value for a trading element and delta values that adjust the base value when the trading element is modified by the attributes,

whereby multiple values are stored for the trading element modified by the attributes.

 The multi-party trading system of claim 6 wherein a trade includes multiple trading elements, multiple trading agents representing multiple buyers and multiple sellers,

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wherein the trade manager generates the net value for each of the multiple trading elements,

whereby multiple-aspect trades are managed.

- 5 10. The multi-party trading system of claim 3 wherein the trade manager identifies a trading protocol, the trade manager informing the trading agents of the trading protocol.
- 11. The multi-party trading system of claim 3 wherein the trade manager selects
 10 participating trading agents from the trading agents, the participating trading
 agents providing or consuming a trading element, the participating elements
 sending true values of the trading element to the trade manager,
 whereby the trade manager selects the participating trading agents for a trade.
- 15 12. (amended) A method for conducting a trade comprising:
 receiving offers from trade agents for a trading element to be exchanged in the trade,
 the trade agents representing trading partners in the trade;
 - for each offer received from a trade agent, receiving a plurality of true values, the true values representing differing valuations the trading partner places on the trading element when modified by attributes;
 - comparing the offers received for the trading element by comparing true values for a plurality of combinations of the attributes;
- selecting a maximum combination of the attributes, the maximum combination being a combination of the attributes that maximizes a cumulative net value, the cumulative net value being a difference between a buyer-sum of true values from trade agents for buyers and a seller-sum of true values from trade agents for sellers for the trading element modified by a particular-combination of the attributes;
- transacting the trade for the trading element modified by the maximum combination of elements,

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whereby the cumulative net value is maximized when selecting attributes of the trading element being traded.

- 13. The method of claim 12 further comprising:
- 5 notifying the trade agents of the combination of attributes of the trading element selected,

whereby the attributes selected for the trade are reported to the trade agents of the buyers and of the sellers.

10 14. The method of claim 12 wherein the attributes are associated with attribute values, the attribute values defining a configuration of an attribute of the trading element;

further comprising:

receiving attribute values from the trade agents with the offer,

- whereby attribute values are submitted with the offers.
 - 15. The method of claim 12 wherein transacting the trade is performed when the cumulative net value is non-negative;

when the cumulative net value is negative, notifying the trade agents that submitted the offers that no deal could be transacted,

whereby the trade agents are notified when no deal is made.

- 16. The method of claim 15 wherein the trade agents are notified of true values that a deal could be transacted at when the cumulative net value is negative,
- 25 whereby feedback of true values is provided when no deal is made.
 - 17. (amended) The method of claim 12 wherein when the cumulative net value is positive, the method further comprising:

allocating the cumulative net value among the buyers and sellers and an exchange that conducts the trade,

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whereby the cumulative net value is allocated among trading partners and the exchange.

18. (amended) The method of claim 12 further comprising:

allocating a remainder of the cumulative net value after an exchange allocation to the exchange by dividing the remainder equally among all buyers and sellers participating in a trade,

whereby the remainder of the cumulative net value is divided equally.

- 19. The method of claim 12 further comprising:
- allocating a remainder of the cumulative net value after an exchange allocation by dividing the remainder in proportion to weightings among the buyers and sellers participating in a trade,

whereby the remainder of the cumulative net value is divided according to the weightings.

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- 20. The method of claim 12 further comprising:
- allocating a remainder of the cumulative net value after an exchange allocation by dividing the remainder among the buyers and sellers participating in a trade in relation to an amount of value created by the buyer or seller,
- whereby the remainder of the cumulative net value is divided according to contribution to value.
 - 21. The method of claim 20 further comprising:

determining a first sum of the true values of the trading partners participating in the

25 trade;

multiplying the cumulative net value by the true value of a trading partner and dividing by the first sum to generate a weighting for the trading partner; and using the weighting to allocate a portion of the remainder to the trading partner, whereby the remainder is allocated based on value-creating weightings.

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- 22. The method of claim 12 wherein the trading element is a product or a service.
- 23. The method of claim 12 further comprising:

identifying a service category associated with the trading element;

- 5 identifying possible trading partners in the service category;
 - sending a request to the trade agents for each of the possible trading partners in the service category;
 - adding a possible trading partner to the trade when the possible trading partner accepts the request,
- 10 whereby other possible trading partners are invited to participate in the trade.
 - 24. The method of claim 12 further comprising:
 - receiving a list of trading partners from an initiating trading partner that initiates the trade,
- whereby the trade is initiated by the initiating trading partner who specifies other trading partners.
 - 25. A computer-program product comprising:
 - a computer-usable medium having computer-readable program code means embodied therein for creating value in an electronic trade, the computer-readable program code means in the computer-program product comprising:
 - trading agent means, coupled to trading partners, for representing the trading partners in the electronic trade;
- value manager means, coupled to the trading agent means, for managing true values,

 the true values being varying values of a product with varying attributes, the
 varying values being values of the products as perceived by the trading partners,
 the true values not being revealed to other trading partners;
 - wherein each trading agent submits a plurality of true values for the product corresponding to the varying attributes:

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trade manager means, coupled to the trading agent means and receiving the true values from the trading agent means, for comparing true values from buyers and from

sellers for various sets of attributes;

net value generator means, coupled to the trade manager means, for generating a net value for each set of attributes, the net value being a difference of a buyer sum and a seller sum, the buyer sum being a sum of the true values from trading agents representing buyers, the seller sum being a sum of the true values from trading agents representing sellers, the buyer sum and the seller sum being evaluated for a specific set of attributes;

maximizer means, coupled to the trade manager means, for finding a set of attributes that maximizes the net value; and

transaction reporter means, coupled to the trade manager means, for reporting the set of attributes that maximized the net value,

whereby the net value is maximized by selecting sets of attributes of the product.

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26. The computer-program product of claim 25 wherein the computer-readable program code means further comprises:

revenue manager means, coupled to the trade manager means, for allocating the net value among the trading partners and among an electronic exchange that hosts the electronic trade,

whereby the net value is allocated among trading partners and the electronic exchange.

- 27. The computer-program product of claim 26 wherein the computer-readable program code means further comprises:
- weighting means, coupled to the revenue manager means, for allocating the net value among the trading partners based on weightings for each of the trading partners participating in the electronic trade,

whereby the net value is allocated based on weightings.

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- 28. The computer-program product of claim 27 wherein the computer-readable program code means further comprises:
- contribution means, coupled to the weighting means, for generating the weightings for the trading partners based on contribution to the net value, the contribution means including sum means for generating a STV sum of the true values of the trading partners participating in the electronic trade, the contribution means generating the weighting for a trading partner by dividing the true value from

whereby the net value is allocated based on contribution to the net value by each trading partner.

that trading partner with the STV sum,